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October 6, 2008

Thomas S. Burack, Chairman  
NH Site Evaluation Committee  
c/o NH Department of Environmental Services  
29 Hazen Drive, P.O. Box 95  
Concord, NH 03302-0095

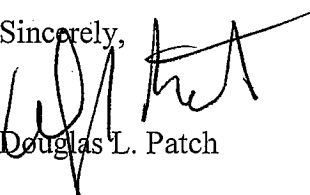
Re: Docket No. 2008-04 - Application of Granite Reliable Power, LLC for a  
certificate of Site and Facility for the Granite Reliable Power Wind Park in Coos County

Dear Chairman Burack:

Enclosed are an original and nine copies of the following documents: (1) the power point presentation that Granite Reliable Power, LLC "GRP") made at the public hearing on October 2, 2008 in Groveton; (2) the supplement to the visual assessment that was requested by the Town of Dummer and was made available to all in attendance during the site visit on October 3, 2008; and (3) the Section 106 Consulting Party Process in New Hampshire handout that was available at the October 2, 2008 hearing. GRP requests that these documents be treated as a supplement to the Application filed with the Committee on July 15, 2008 and that they be included as Appendices 36, 37 and 38 respectively.

Thank you for your cooperation. Please let me know if you have any questions.

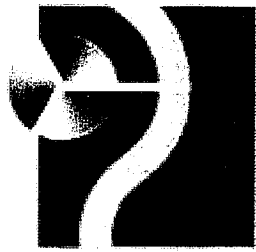
Sincerely,



Douglas L. Patch

cc. Service list in SEC Docket No. 2008-04

504575\_1.DOC



**Noble**  
ENVIRONMENTAL POWER

**Granite Reliable Power Windpark**

**Joint Public Hearing – October 2<sup>nd</sup> 2008**

**New Hampshire Site Evaluation Committee**

**and**

**United States Army Corps of Engineers**

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## Overview

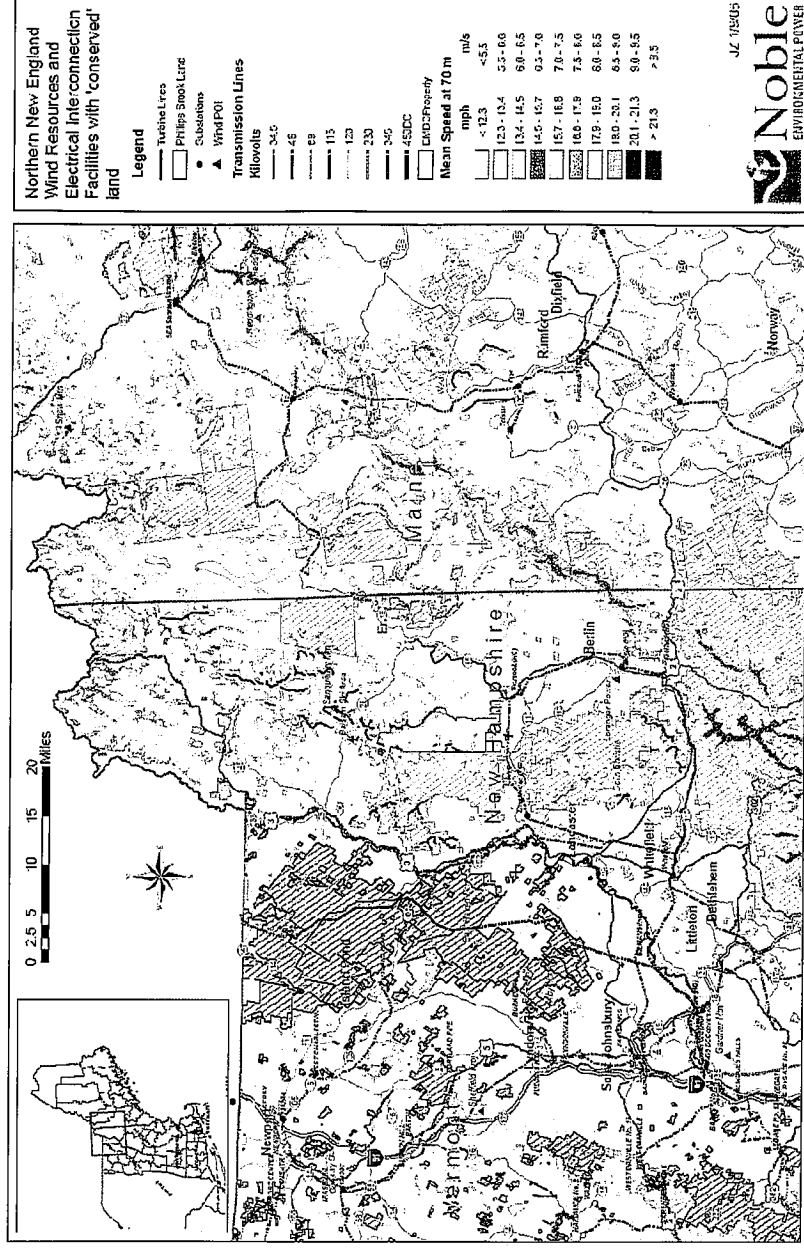
- About the Company
- About the Windpark
- Project Description
- Environmental Studies
- Project Alternatives
- Proposed Mitigation
- Project Benefits

## About Noble Environmental Power

- Formed by wind energy industry leaders responding to public policy initiatives to increase renewable energy sources.
- Granite Reliable Power LLC, majority owned by Noble Environmental Power, LLC majority owned by JP Morgan Partners Fund
- Noble has over 1,000 megawatts of wind generation that are in the later stages of development, construction or are in operation.
- Office in Lancaster (the old court house on main street)

# Why Coös County?

- Excellent wind resources
- Broad and deep support for wind energy
- Need for new generation sources
- Need to reduce reliance on natural gas
- Rising energy prices are driving demand for renewables





# Proposed in Dixville, Erving's Location, Odell, Millsfield and Dummer

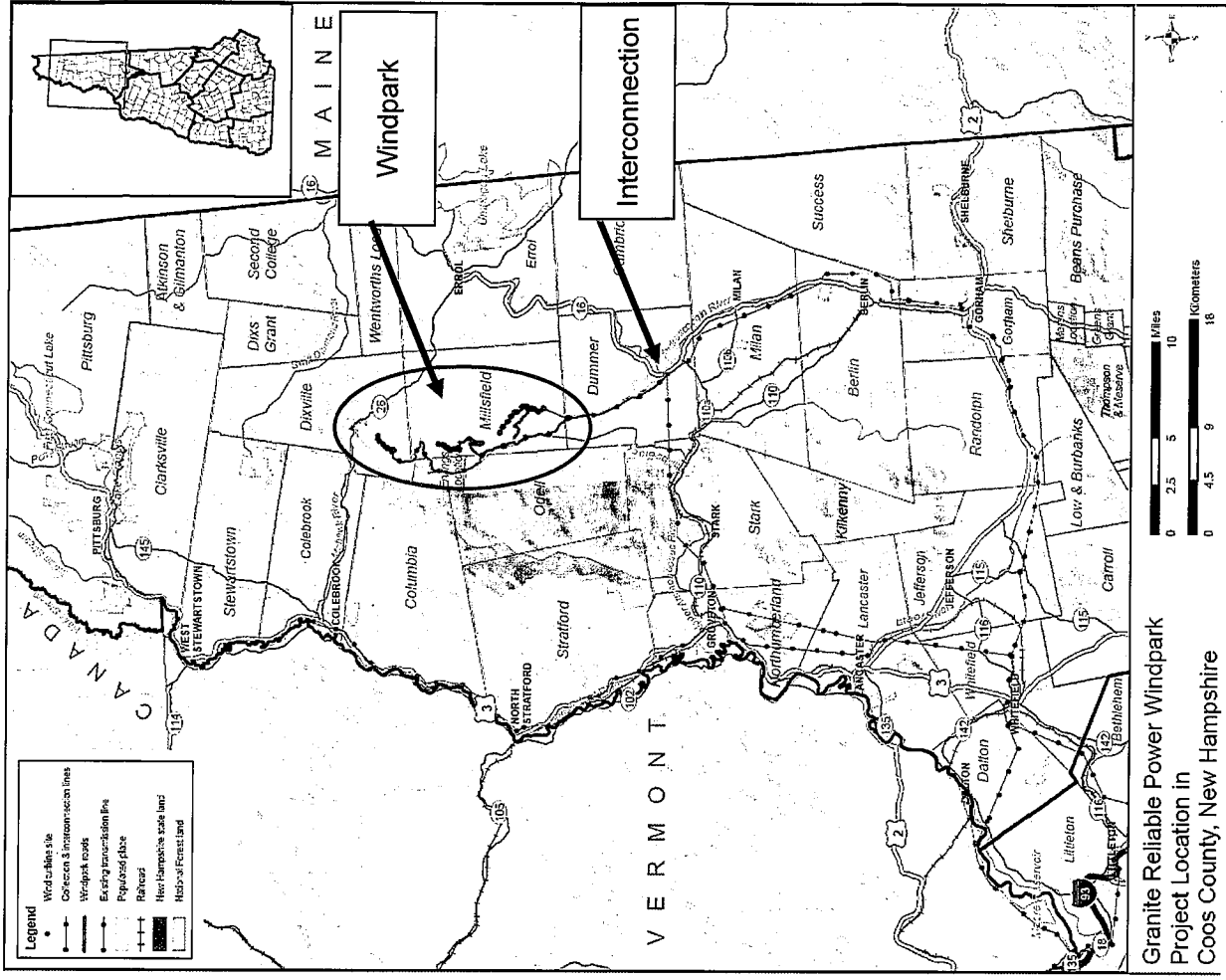
■ **99 MW based on Vestas V-90**  
**(1 wind turbine can supply up to**  
**1,000 homes)**

■ Private land (3 land owners)

■ **Spans 80,000+ acres of active commercial forest (project will use ~ 203 acres of land)**

■ **Turbines sited on ridgelines within three separate tracts**

■ **Position in ISO queue permits access to transmission grid**



**THE UNIVERSITY OF CHICAGO**



## So how did we get here?

This project represents over two and a half years of intensive study involving:

Analysis of wind data to confirm wind resource and properly site windpark

Working with private landowners, individuals, community leaders, state and federal agencies

Hiring of local firms (Horizons Engineering, York Land Services, Lobdell and Associates, Kel-log Logging)



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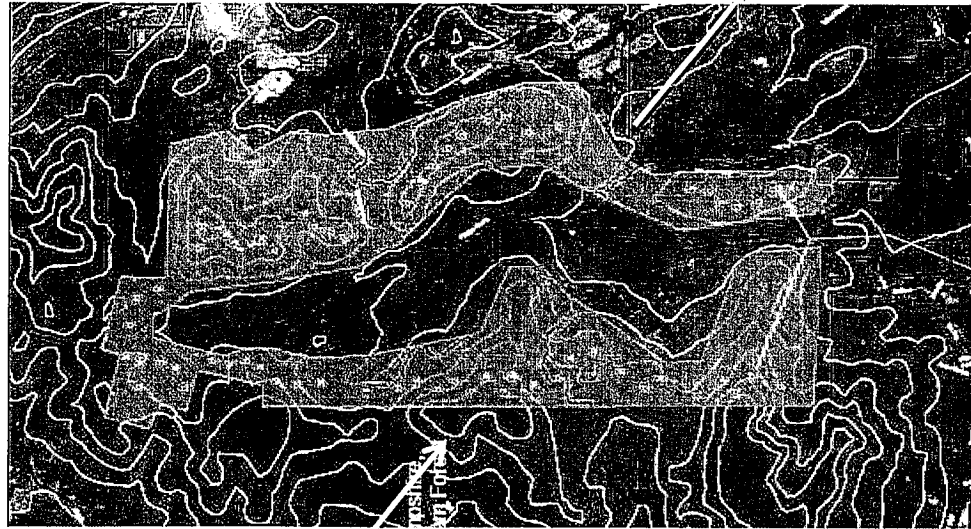
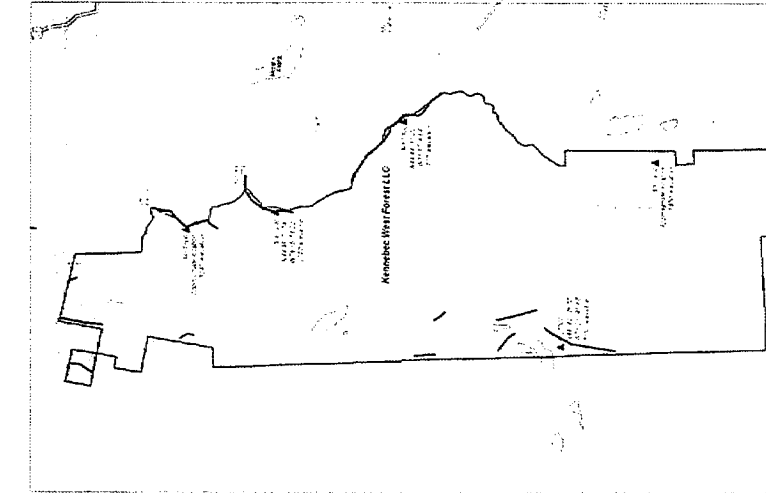


# Completed Environmental Studies

Interconnection Studies	• System Impact and Feasibility Studies required by ISO NE and PSNH	In Progress
Road Use	• Special Permit to Move a Load in Excess of Legal Limit	To be submitted to the NH Dept of Transportation once permits are issued
Water Quality	• 401 Water Quality Certification Application	submitted to NH DES Watershed Management Bureau (permitting authority for EPA)
	• Standard Dredge & Fill Permit Application	submitted to NH DES Wetlands Division
	• Site Specific Alteration of Terrain Permit Application	submitted to NH DES Water Division
Human Impacts	• Environmental Sound Survey and Noise Impacts Assessment	Completed November, 2007
	• Jobs and Economic Development Impact (JEDI) Study	Completed October, 2007
	• Shadow Flicker Analysis	Completed December, 2007
	• Visual Impact Analysis	Completed December, 2007
Natural Environment and Wildlife	• Acoustic Bat Survey	Completed for Spring, Summer, Fall 2007
	• Breeding Birds Survey	Completed for Spring 2007
	• Natural Communities Field Survey	Spring 2008
	• Nocturnal RADAR Surveys	Completed for Fall 2006, Spring 2007, Fall 2007
	• Raptor Survey	Completed for Fall 2007
	• Reconnaissance-Level Rare Plants Survey	Completed for Spring, Summer 2007
	• Reconnaissance-Level Wetland and Vernal Pool Survey	Completed for Spring 2007
	• Winter Tracking Survey	Completed for Winter 2007
Airspace	• FAA analysis of Imaginary Surface Penetration, Operational Impacts and Electromagnetic Impacts, and Obstruction Lighting	Pending receipt of Notice of Proposed Construction (Form 7460-1)
	• FAA Determination of No Hazard to Air Navigation for each turbine location	Pending final construction plans
Archeological and Historic Resources	• Phase 1A and 1B Archeological Surveys	Phase 1A Completed, Phase 1B in Progress
	• Identification of properties within Area of Potential Impact listed or eligible for listing on State or National Register of Historic Places and assessment of potential effects	Completed

www.noblepower.com





## Alternatives

Studies and constant dialogue aided in the design  
& alternatives of windpark

*For example:*

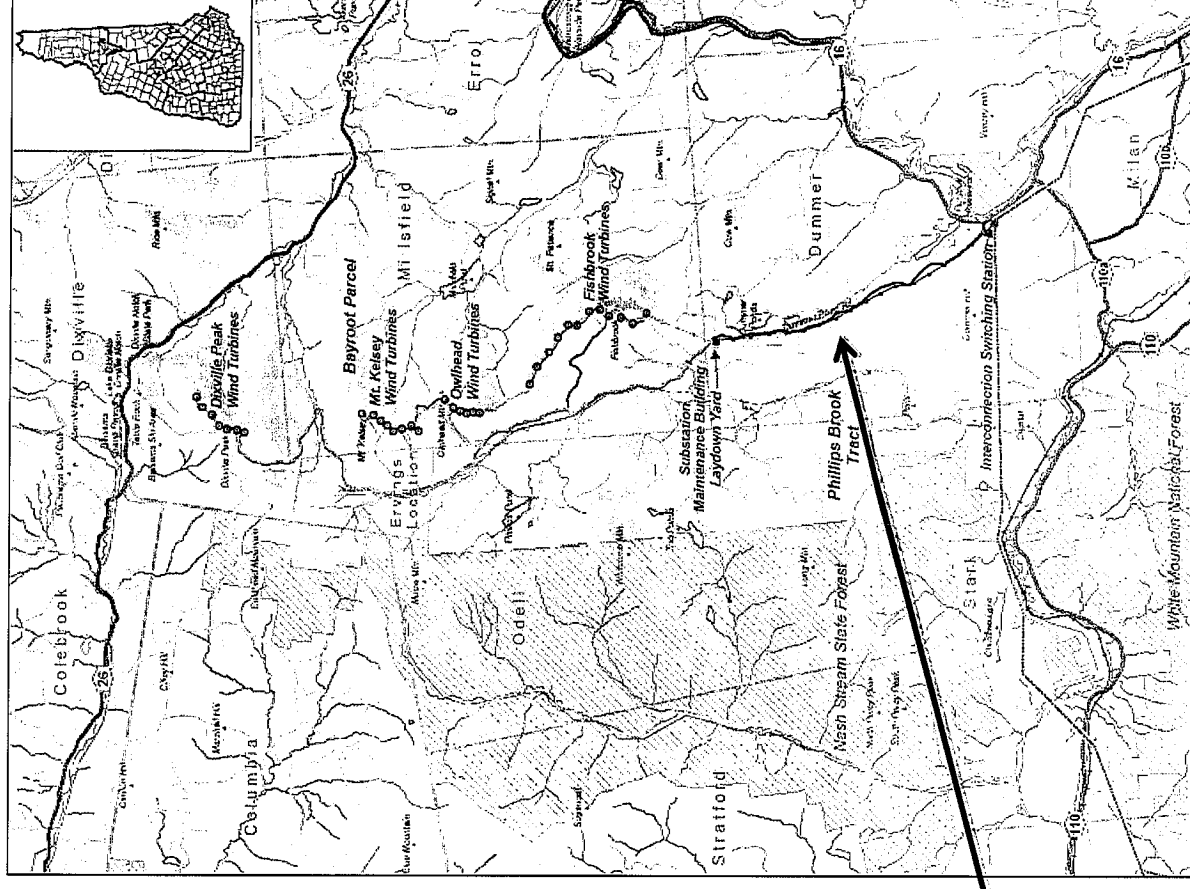
- Original windpark envisioned only one landowner.
- Original Turbine Layout envisioned 67 GE 1.5MW machines
- Input from New Hampshire Audubon and other studies resulted in smaller footprint and reduction of turbines and additional landowners into project in order to maximize wind resource and minimize impact.



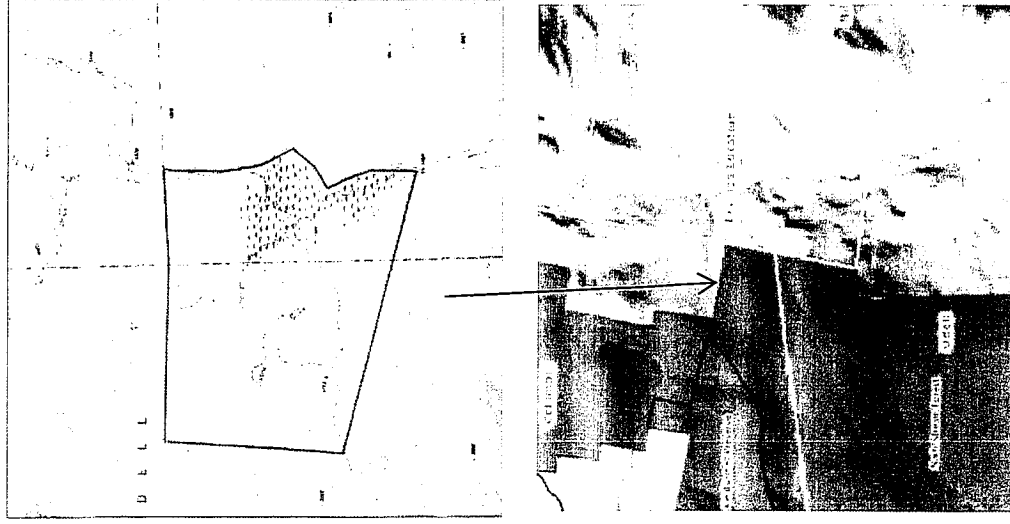
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## Windpark design combines results from field surveys and industry experience

- Site layout maximizes use of existing logging roads
  - 19 miles of existing logging roads will be used (over 100 miles of existing logging roads available on Phillips Brook Tract alone)
  - 12 miles of new project road are proposed
  - Employing specialty hauling vehicles in order to utilize existing road structure thereby reducing primary and secondary impacts (Dummer Pond road shown below)

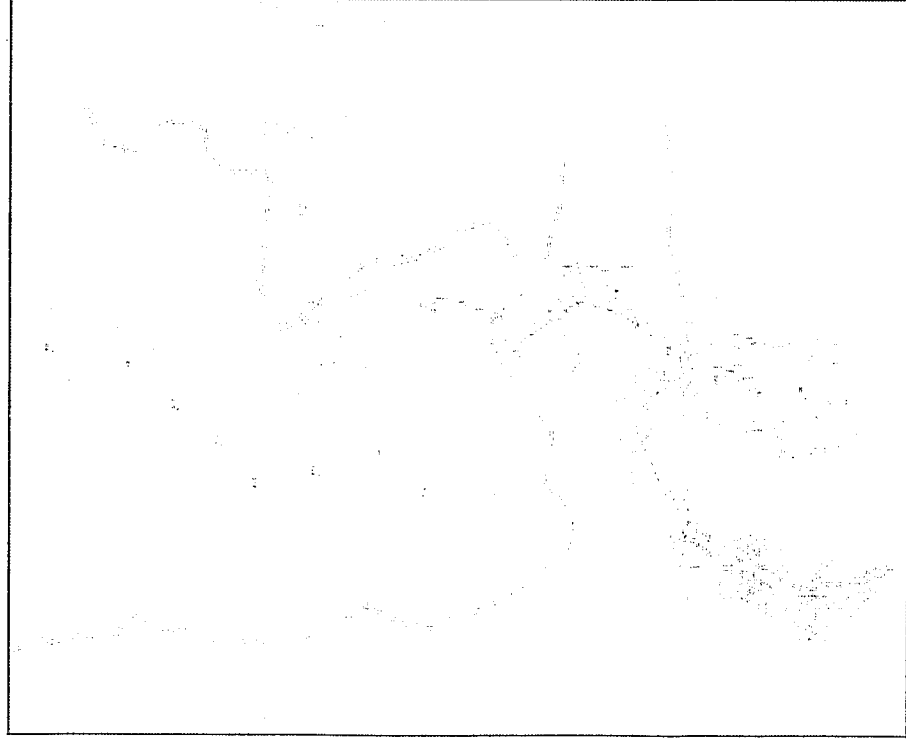


## Impacts to Wetlands and Proposed Mitigation



- Project involves disturbing approximately 12.81 acres of wetlands (half of the impact comes from upgrading existing roads and the installation of appropriate storm water control measures)
- As part of the Federal Section 404 Process and State Wetlands Process Granite is proposing to mitigate for the impact to wetland by:
- Conserving 660 Acres of land that form the headwaters of the Phillips Brook
  - Creating Vernal Pools within proposed site
  - Adjacent to Nash Stream Forest
  - Contains high elevation forest

## Impacts to High Elevation Species and Proposed Mitigation



- Project will directly affect approximately 58 acres of high elevation land (above 2700 feet), or 2% of ridgelines on which the turbines are being proposed.
- Recognize the need to conserve high elevation that is important for species such as Bicknell Thrush and American Marten.
- Project will permanently set aside and conserve by easement 460 acres of land, 250 of which are high elevation Spruce Forest or Spruce-Fir forest, and 350 acres of which are above 2700 feet, representing 9% of the available habitat above 2700 feet on the Project's ridges

# Wind Energy's Economic impacts

## On-site direct, Off-site direct, Indirect, Induced

*Wind energy's economic "ripple effect"*

### Direct Impacts

#### On-site

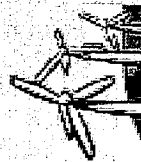
Construction workers  
Management  
Administrative support

#### Off-site

Boom truck & management, gas and gas  
station workers, blades and towers &  
workers

Cement truck drivers,  
road crews, maintenance  
workers

Hardware store purchases and workers,  
spare parts and their suppliers



### Indirect Impacts

These are jobs with and  
payments made to  
supporting businesses,  
such as bankers  
financing the  
construction,  
contractor,  
manufacturers and  
equipment suppliers.

### Induced Impacts

These jobs and  
earnings result from  
the spending by  
people directly and  
indirectly supported  
by the project,  
including benefits to  
grocery store clerks,  
retail salespeople and  
child care providers.

## Estimated Economic Benefits - (for a 99 MW project)

### ■ Jobs:

- Estimated 180 - 220 during construction, and 7 - 15 during operations.
- The jobs include direct payroll, suppliers, and services provided by local merchants.

### ■ Total local economic impacts (approx):

- \$19.4 million during construction
- \$2.2 million annually during operations
- \$63.4 million total over 20 years

Source: Marshall Goldberg, *JEDI (Jobs and Economic Development Impacts)*  
Model <http://www.eere.energy.gov>

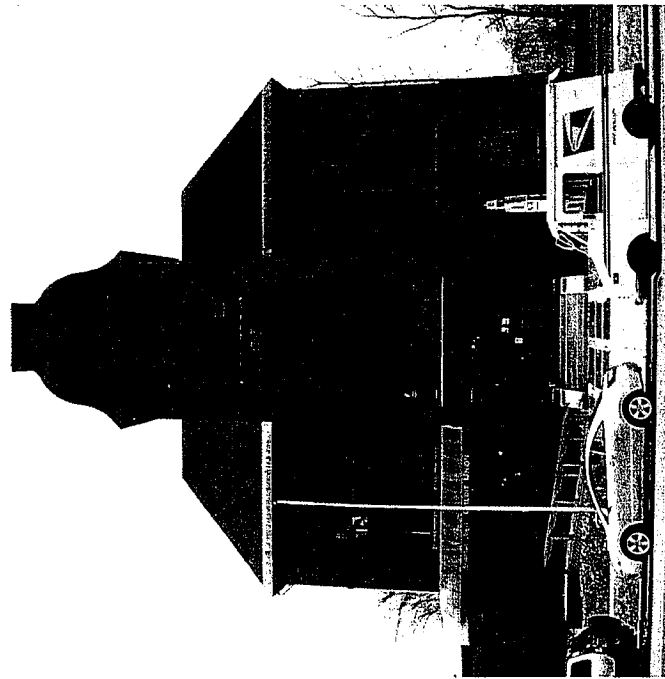
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For more information about the  
windpark, please visit:  
<http://nhsec.state.nh.us/current.htm>

Or

[www.noblepower.com](http://www.noblepower.com)



**Pip Decker**  
**Development Manager**  
**Noble Environmental Power**  
148 Main Street , Second Floor  
Lancaster, NH  
603-788-2840  
[deckerp@noblepower.com](mailto:deckerp@noblepower.com)

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# **Visual Assessment of Interconnection Line Visibility from Dummer Pond**

**For Noble Environmental Power LLC**

**By**

**Jean Vissering and Tom Kokx, Landscape Architects**

**September 16, 2008**

## **Purpose of Report**

At the request of the Town of Dummer, Noble Environmental Power LLC asked for an assessment of the potential visibility of interconnection lines and poles from Dummer Pond. The 115kV interconnection line will be located west of Dummer Pond along the west side of a road which runs from Route 16 near Pontook Reservoir north to the Phillips Pond area.

## **Study Methodology**

The study focused on the portion of the interconnection line running west of the pond. This section has the greatest chance of visibility due to its proximity to the pond and the topography in the area. The poles will be wood H-frame structures approximately 50-55 feet in height. Approximately 12 pole locations west of the pond were evaluated using aerial photos, USGS map, site photos, and cross section profiles. The pole locations and approximately 100-foot clearing zone were provided by Noble Environmental as a data layer for the assessment. Four potential areas on the pond were selected which provided a mix of viewing angles for assessing potential visibility. Cross section profiles were drawn relative to these locations to examine potential visibility. The aerial photographs, flown in approximately 2003/04, show some clear cutting. These areas were included in the cross sections along with an assumed average tree height of 50 feet where vegetation exists.

Please refer to the following attachments:

- Aerial Photo Map Showing Cross Section Locations
- USGS Map Showing Cross Section Locations
- Cross Sections
- Photos Illustrating Pole Locations



## Conclusions

### General

There is a strong probability that at least 3 poles (poles 3, 4, and 5) will be visible from the southern third of Dummer Pond, especially from the eastern side of the pond. Up to three quarters of the poles may be visible though this visibility will be reduced as an existing clear cut grows to maturity. The tops of another five poles (poles 2, 6, 7, 8, and 9) could also be visible from locations within the eastern two-thirds of Dummer Pond. The lines themselves will be difficult to see since they would be seen against a backdrop of surrounding hills. This condition will also help to reduce the prominence of the poles. Retaining vegetation between the line clearing and the road where this is possible will further reduce the potential for visibility. The poles are likely to be most visible when first installed, and to become less noticeable as time passes.

### Detailed

- From viewing positions on Dummer Pond, there will be more probability of viewing portions of the poles from locations along the eastern one-third of the pond near the eastern shoreline. From these locations screening is dependent on vegetation between the road and interconnection line clearing. Where that vegetation becomes sparse there is increased likelihood of being able to view greater portions of the poles and interconnection line.
- As the viewing location moves to the west and the angle of view increases the probability of viewing the poles and interconnection line decreases. Toward the western one-third of the pond the shoreline vegetation becomes a screening factor and any opportunity to view the poles / interconnection line decreases until it is completely eliminated.

### Pole 1

- Will likely not be viewed from the pond.

### Poles 2 – 5

- The clearcut area evident in the aerial photo will have an effect on the probability of viewing poles 2 – 5.
- Poles 4 and 5 will likely be the ones most exposed and where a considerable amount of the pole and interconnection line will be observed from locations toward the south end of the pond. They will be observed against a slope that has had recent timber harvesting activity. From the CAD files it appears that the clearing will be right up to the road for poles 3, 4, and 5.

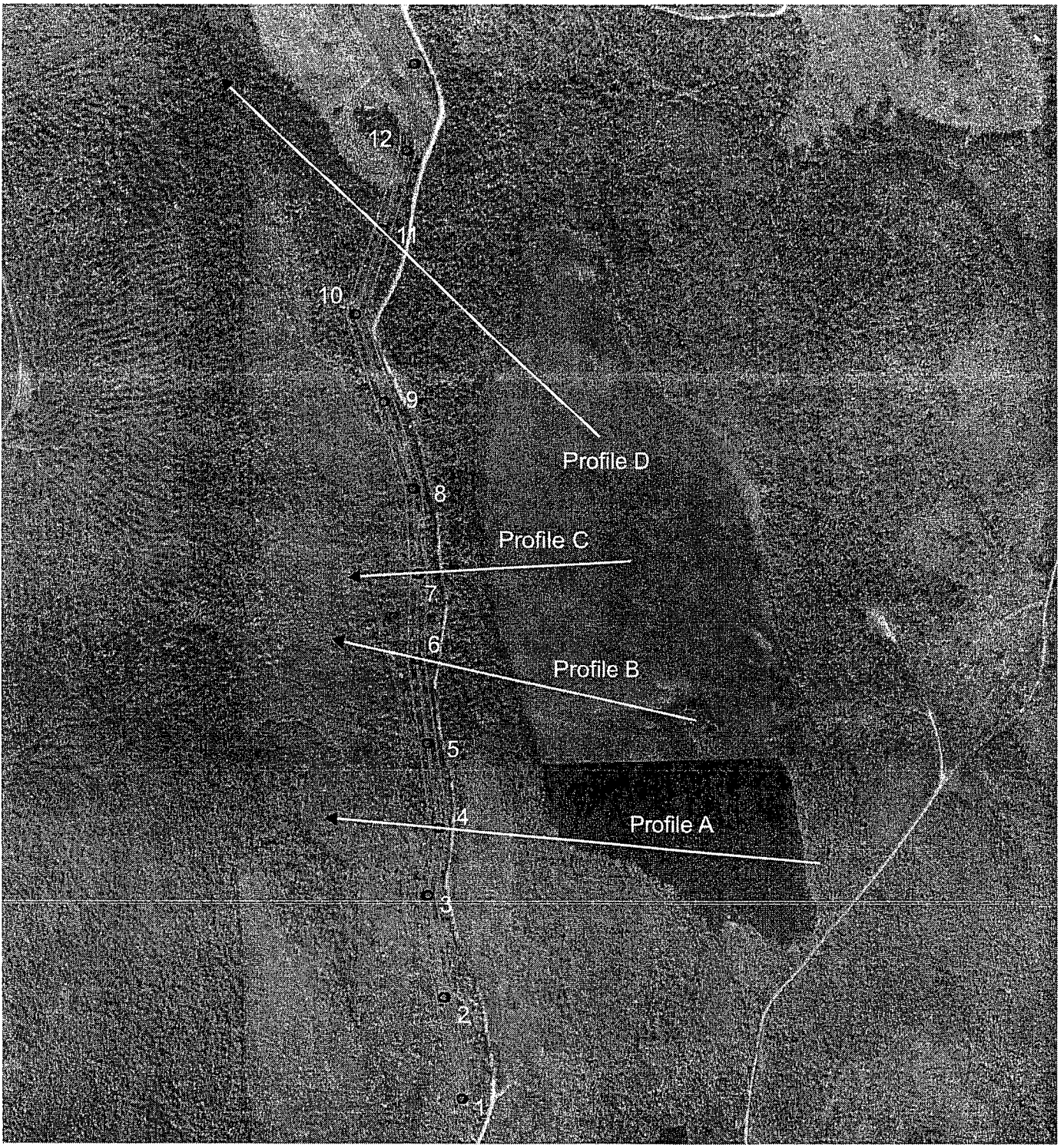
- Pole 3 will likely have similar effects as poles 4 and 5 when viewed from the central portion of the pond.
- Pole 2 will likely have adequate screening remaining that only the top portion could be visible. Note – Important to retain vegetation between proposed 100' clearing and road.

#### Poles 6 – 9

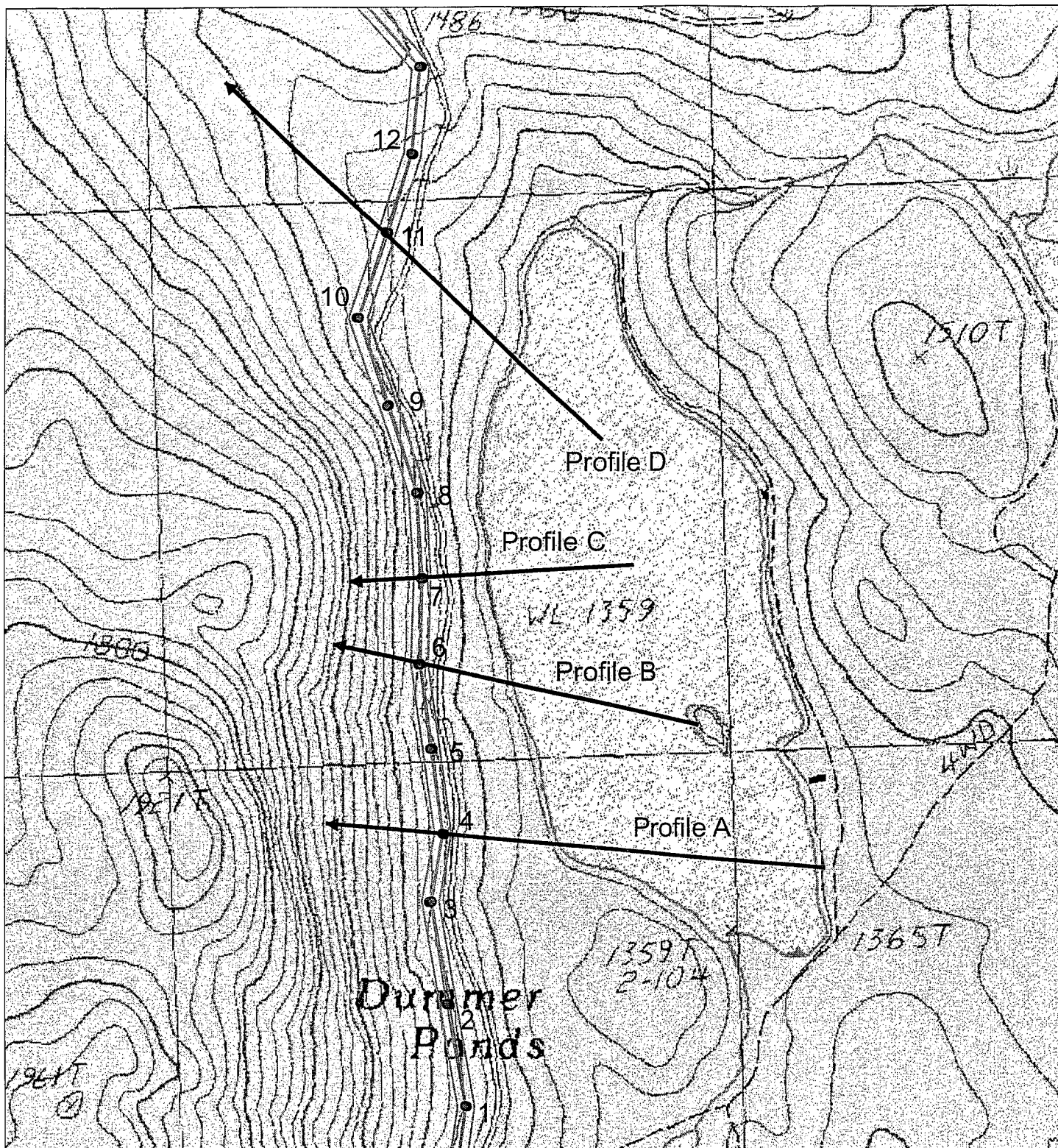
- If the remaining vegetation between the 100' clearing and road is retained, only the top portion of the poles should be visible. Note – Retaining vegetation between proposed 100' clearing and road will reduce the likelihood of visibility.
- Except for minimal vegetation west of poles 6 and 9, there is little vegetation behind the poles when viewed from the pond and they will be observed against a slope with recent harvest activity.

#### Poles 10 – 12

- Profile analysis indicates that these poles are located in terrain that is much flatter and as a result the leading edge of vegetation will screen views of the top of the poles.



Dummer Pond Interconnection Line Visibility Study  
(Cross Section Profile Locations)



Dummer Pond Interconnection Line Visibility Study  
(Cross Section Profile Locations)

B  
E  
C

Shoreline  
Edge

PROFILE A

CL Road

Shoreline  
Edge

PROFILE B

CL Road

Shoreline  
Edge

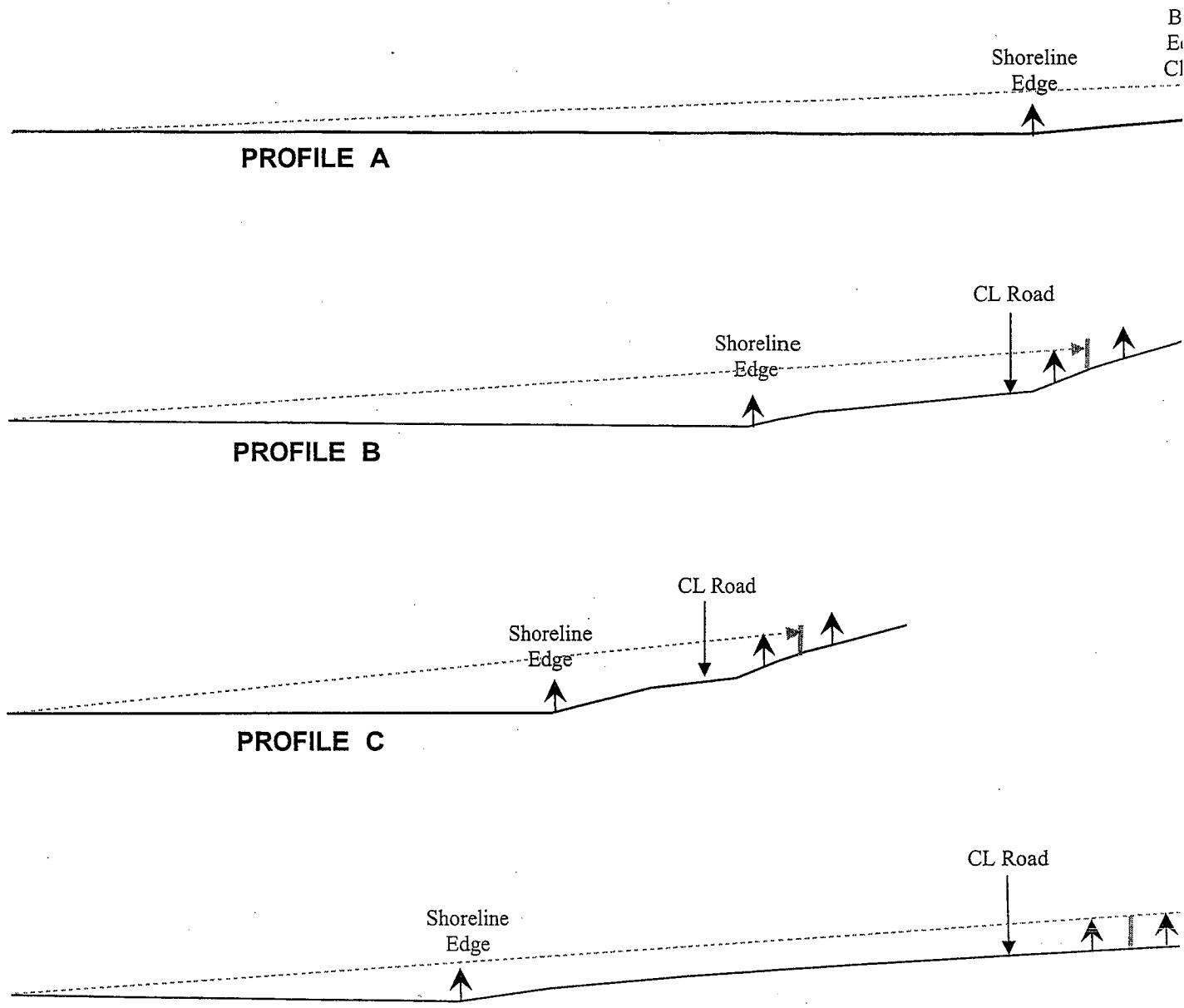
PROFILE C

CL Road

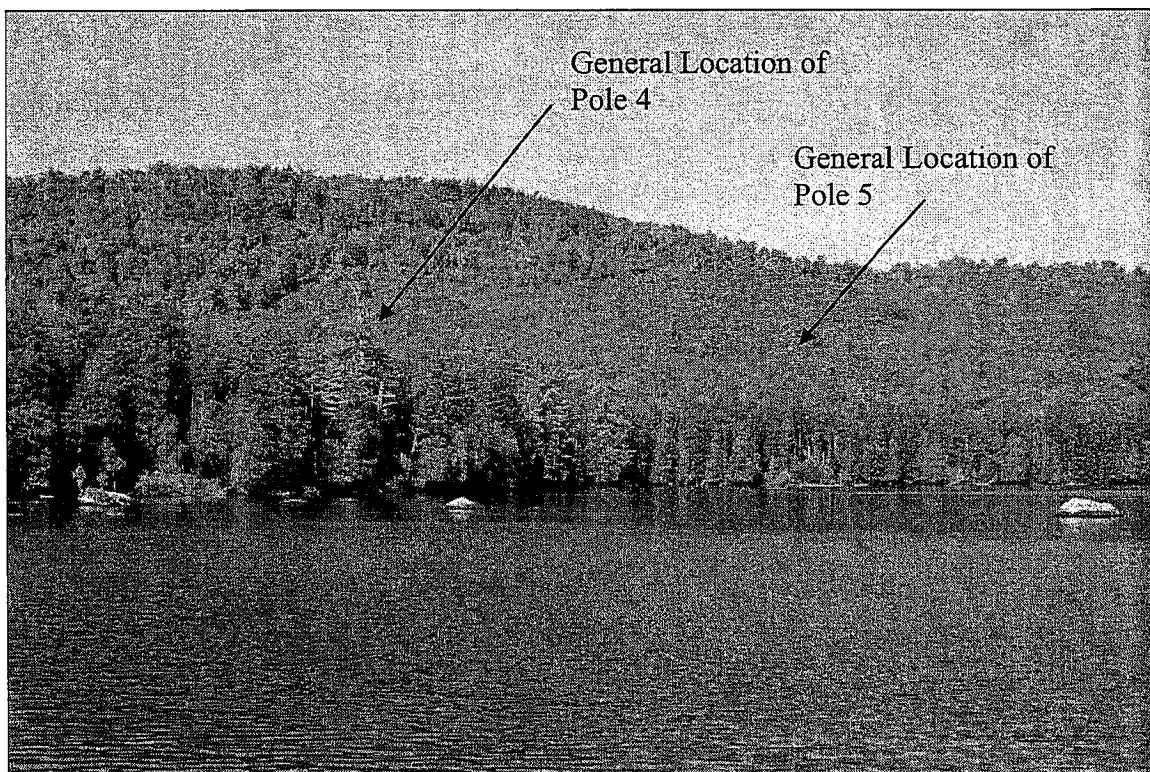
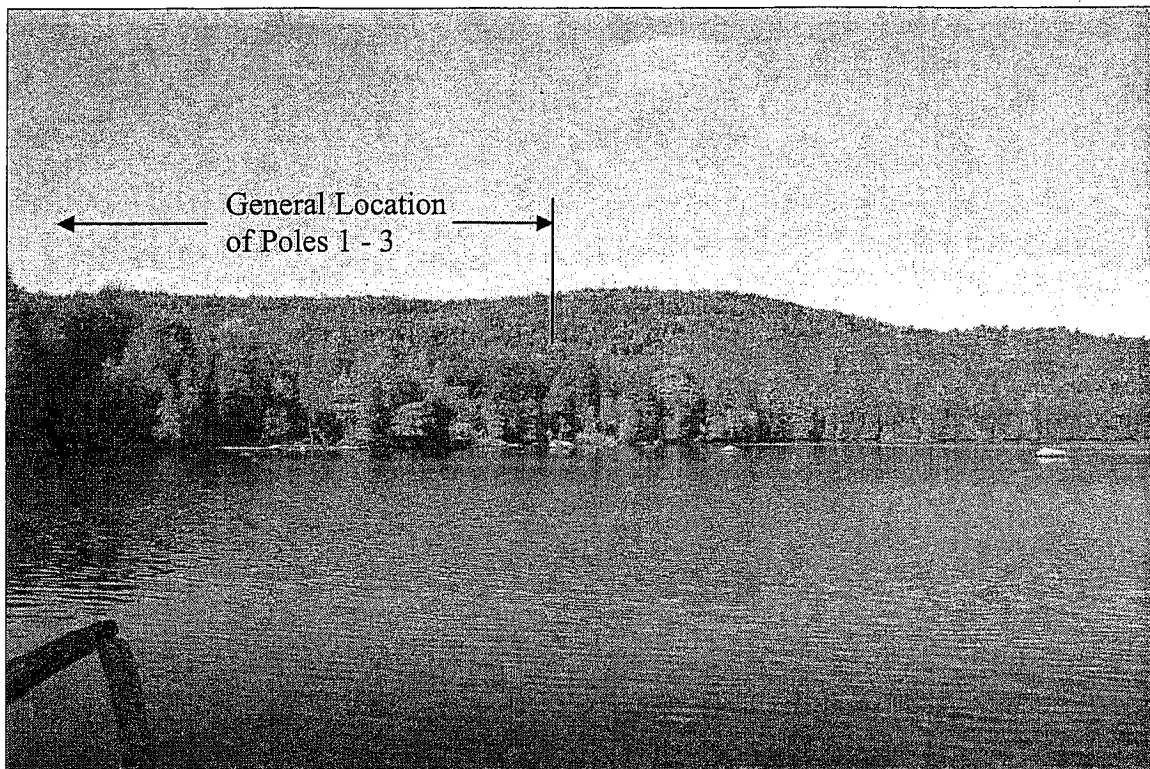
Shoreline  
Edge

PROFILE D

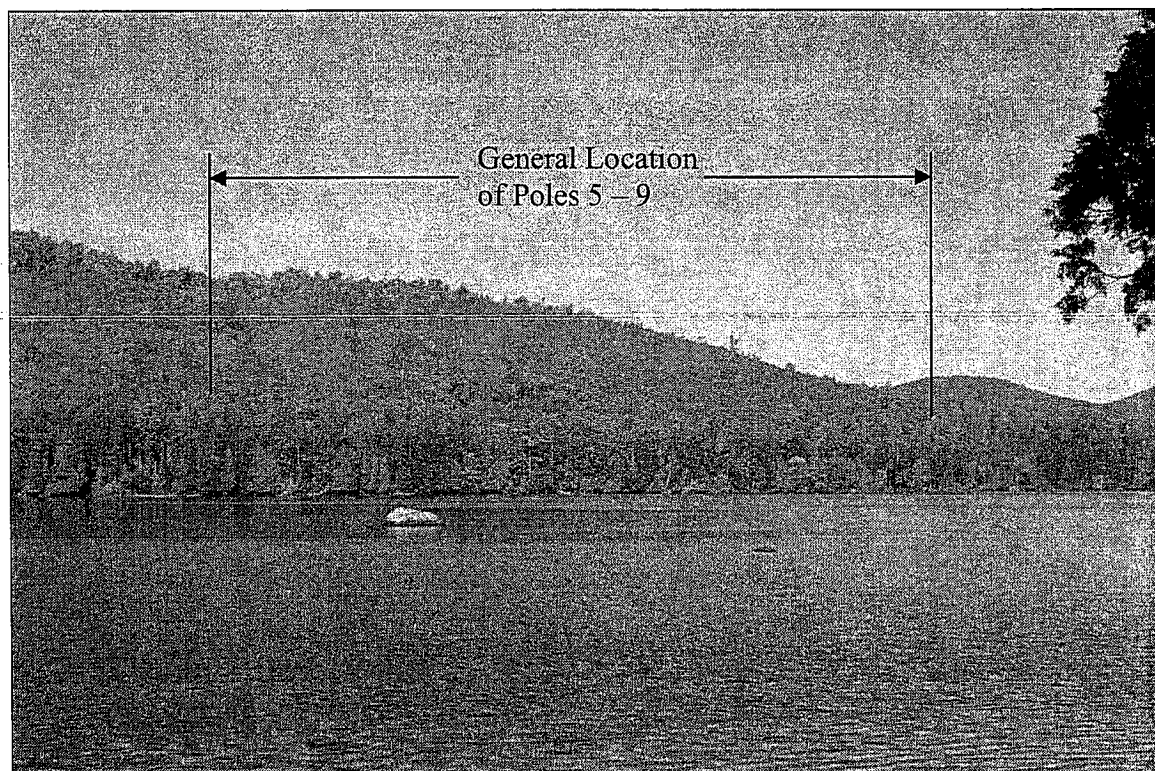
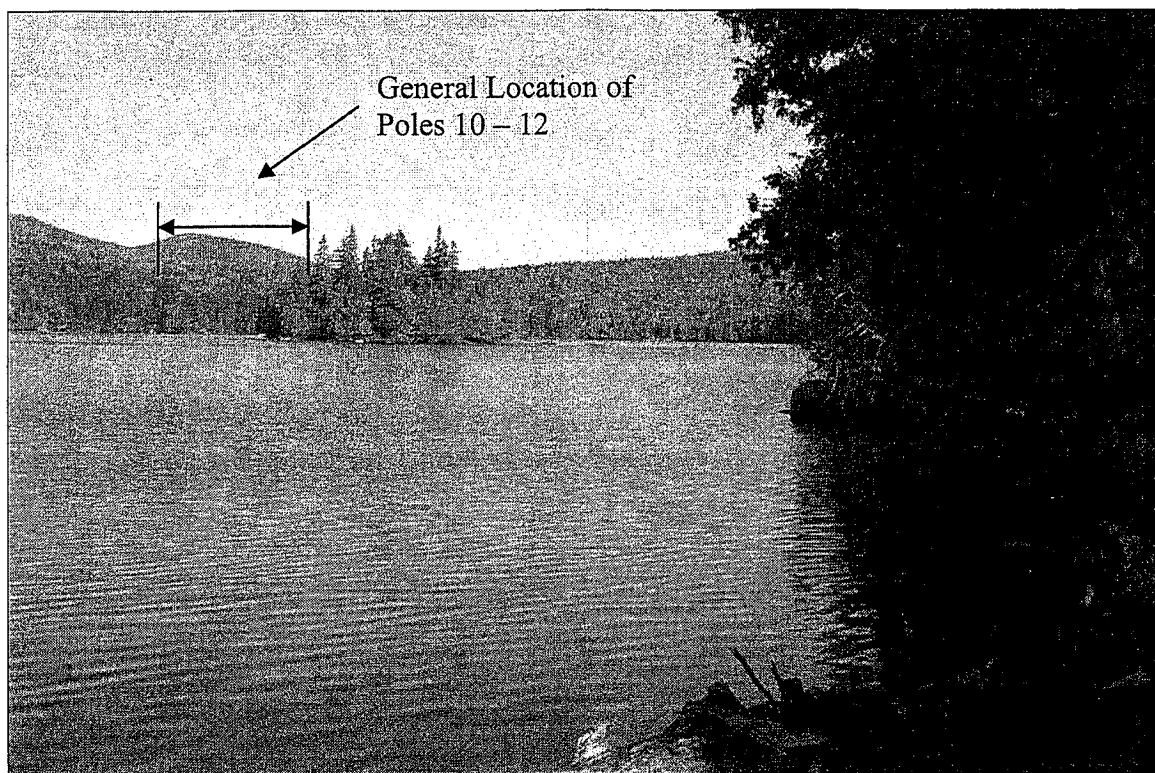
Dummer Pon  
Visibilit



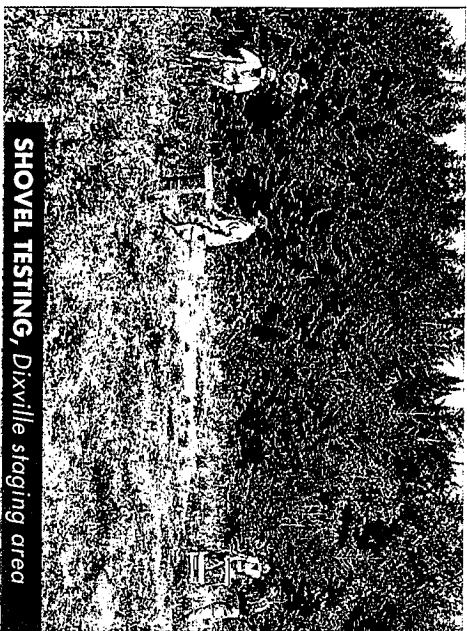




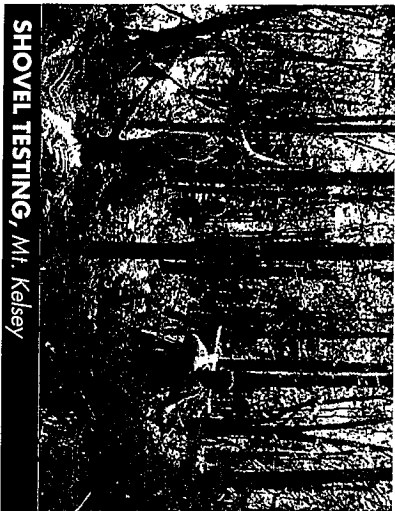
View from approximate location of line-of-site for Profile A. Note clearcut area and general location of poles 4 and 5.



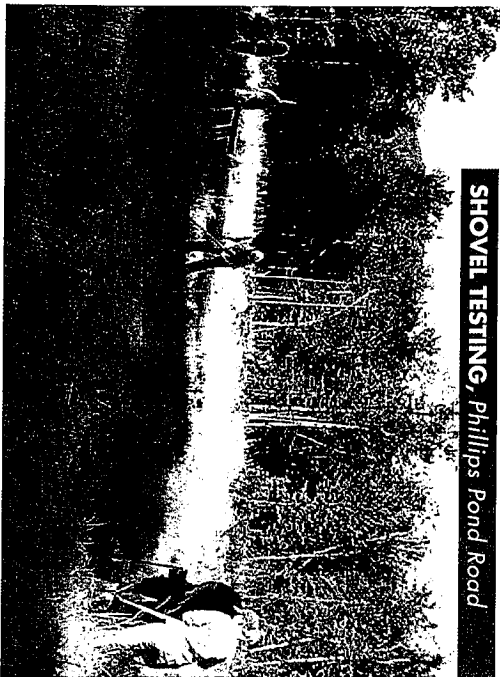
View from Viewpoint 23 looking north / northwest (top) and northwest (bottom). Note flatter more gentle terrain to north, especially to west of island where poles 10, 11, and 12 will be located.



**SHOVEL TESTING, Dixville staging area**



**SHOVEL TESTING, Mt. Kelsey**



**SHOVEL TESTING, Phillips Pond Road**

**SECTION 106 CONSULTING PARTY  
PROCESS IN NEW HAMPSHIRE**

FOR MORE INFORMATION on how you  
can become a consulting party, contact:

**Richard A. Roach**

696 Virginia Road  
Concord, MA 02254

U.S. Army Corps of Engineers

email: Richard.a.Roach@Usace.army.mil

FOR GENERAL INFORMATION related  
to the project, please contact:

**Pip Decker**

Development Manager

148 Main Street

Second Floor

Lancaster, NH 03584

Tel: 603-788-2840

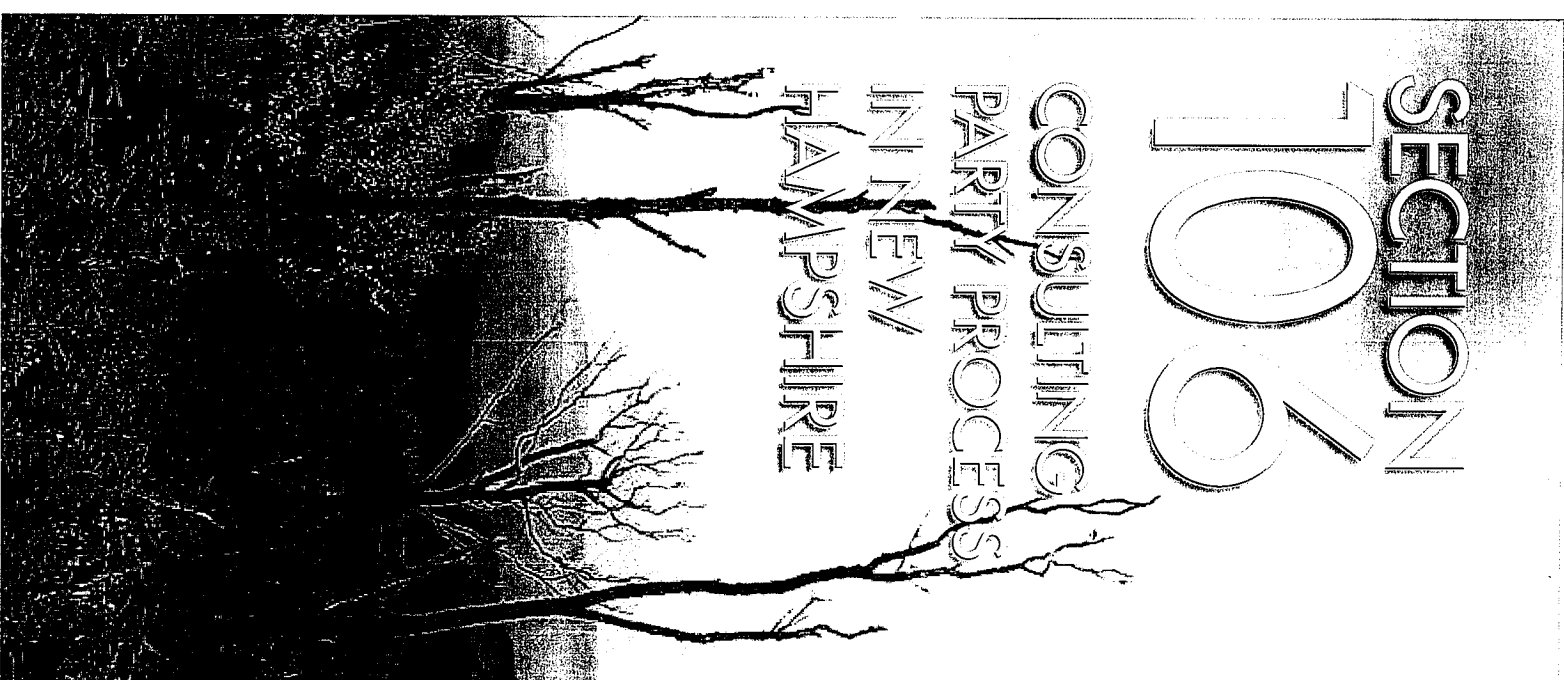
email: Deckerp@noblepower.com

FURTHER INFORMATION about the  
project can be found at:

<http://nhsec.state.nh.us/current.htm>



**SECTION  
106  
CONSULTING  
PARTY PROCESS  
IN NEW  
HAMPSHIRE**





## SECTION 106 CONSULTING PARTY PROCESS IN NEW HAMPSHIRE

IN THE National Historic Preservation Act (NHPA), Congress established a comprehensive program to preserve the historical and cultural foundations of the Nation as a living part of community life.

**SECTION 106** of NHPA is crucial to that program, because it requires consideration of historic preservation in the multitude of Federal actions that take place nationwide and throughout New Hampshire.

This project will require a Federal Permit under Section 404 of the Clean Water Act and will be issued by the lead agency for this project, the U.S. Army Corps of Engineers.

### TO SUCCESSFULLY COMPLETE SECTION 106 REVIEW, FEDERAL AGENCIES MUST:

- **DETERMINE IF SECTION 106** of NHPA applies to a given project and, if so, initiate the review;
- **GATHER INFORMATION** to decide which properties in the project area are listed in or eligible for the National Register of Historic Places;
- **EXPLORE ALTERNATIVES** to avoid or reduce harm to historic properties;
- **DETERMINE** how historic properties might be affected;
- **REACH AGREEMENT** with the State Historic Preservation Officer (SHPO)/Tribe (and the Advisory Council on Historic Preservation in some cases) on measures to deal with any adverse effects.

### Throughout SECTION 106

Review, Federal agencies must consider the views of the public. Granite Reliable Power, LLC (GRP) actively seeks comments through a public participation process.

Most projects include one or more public informational meetings to inform the public and solicit input on the current status as it evolves. Additional input from the general public can be obtained at the Public Hearing.

**WHEN CULTURAL** resources are located within a project area, GRP will ask at public meetings whether or not appropriate institutions and individuals would like to participate as consulting parties. Approved consulting parties also have the opportunity to provide input at regularly scheduled bi-monthly Cultural Resource Agency Coordination Meetings.

### WHO ARE "CONSULTING PARTIES"?

The following parties are entitled to actively participate as consulting parties during **SECTION 106** Review:

- State Historic Preservation Officers
- Indian Tribes
- Local Governments
- Historical Societies
- Historical Commissions
- Property owners in the project area



Other individuals and organizations with a demonstrated interest in the project may participate in **SECTION 106** Review as consulting parties.

Consulting parties are entitled to share your views, receive and review pertinent information, offer ideas, and consider possible solutions together with GRP and other consulting parties.

Consultation does not mandate a specific outcome. It is the process of seeking consensus about how the effects on historic properties should be handled.

**FURTHER INFORMATION** about the **SECTION 106** process can be found at: <http://www.achp.gov/citizensguide>